

Field Inspection Reports: Review Structural Steel

Objective

Access for Structural Steel
Using the windows in the Structural Steel sub-module

Review Structural Steel

Step 1: Choose **Field Inspection Reports** from the **Functions** menu in HiCAMS.

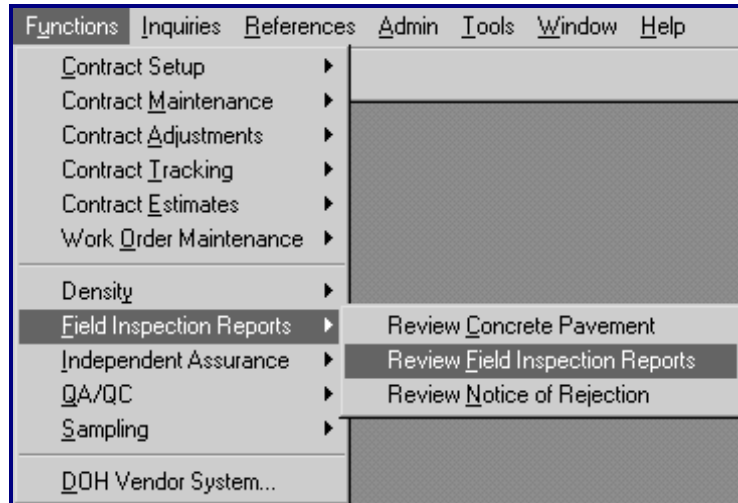



Figure 1 - Access to Review Field Inspection Reports

Step 2: To access a NEW Structural Steel Report, select a valid *Contract*,  click the *Report Name* field, and select **Structural Steel**.

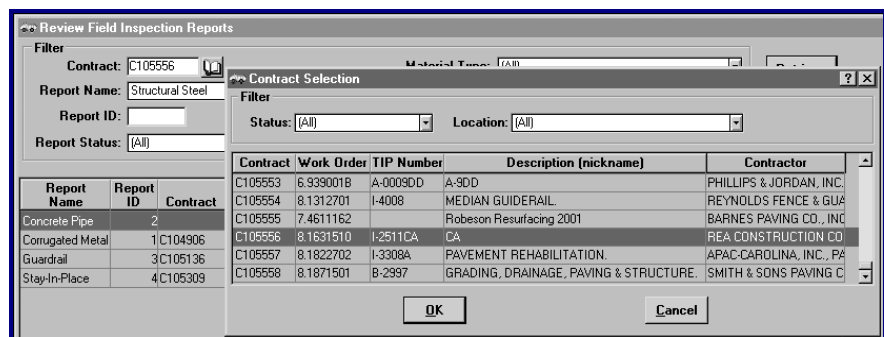


Figure 2 - Selecting a valid Contract number for Structural Steel

Review Field Inspection Reports

Filter

Contract: Material Type:

Report Name: Inspected By:

Report ID: Section: Inspection Date:

Report Status: Inspection Result:

Report Name	Report ID	Contract	Material Type	Inspector	Inspection Date	Section	Inspection Result	Report Status
Concrete Pipe	2		Pipe Culvert, Concrete	Dean, Leigh Ann	04/02/2001	2&3	Meets Specs	In Process
Corrugated Metal	1 C104906		Pipe Culvert, Metal	Frederick, Samuel	04/09/2001	7&9	Meets Specs	In Process
Guardrail	3 C105136			Horne, Kenneth	04/02/2001	2&3	Meets Specs	In Process

Filter

Contract:

Report Name:

Report ID:

Report Status:

Report Name:

Figure 3 - Selecting the Report Name for a NEW Structure Steel Report

Step 3: Click the **New** button, and the General tab for Structural Steel Report is displayed:

Review Structural Steel

Report Name: Report ID: Report Status:

Contract: C105556 Contractor: REA CONSTRUCTION COMPANY Status:

Description: CA Work Order: 81631510

General | Pay Items | Hardware | Report | History

Material Type:

Material:

Line Item:

Sample From: Testing Category:

Accepted: Rejected:

Shop Job:

Station: Location:

Search by Plant ID: Section: County:

Fabricator:

Inspection Results

Inspector: Inspection Date: Inspection Result:

Comment:

Figure 4 - New Review Structural Steel Window

Step 4: To access an *existing* Structural Steel Report, follow Step 1 above and double-click the desired report from the list

displayed or click the **Details** button after highlighting the desired report.

Review Field Inspection Reports

Filter

Contract: Material Type:

Report Name: Inspected By:

Report ID: Section: Inspection Date:

Report Status: Inspection Result:

Report Name	Report ID	Contract	Material Type	Inspector	Inspection Date	Section	Inspection Result	Report Status
Concrete Pipe	10		Pipe Culvert, Concrete	Jensen, Amy L	04/02/2001	6&8	Meets Specs	In Process
Concrete Pipe	6		Pipe Culvert, Concrete	Main, Robert W	05/01/2001	6&8	Meets Specs	In Process
Concrete Pipe	4		Pipe Culvert, Concrete	Garbee II, William	05/01/2001	6&8	Meets Specs	In Process
Corrugated Metal	11	C104901	Pipe Culvert, Metal	Pace, Randy K	04/02/2001	7&9	Meets Specs	In Process
Guardrail	12			Pace, Randy K	04/02/2001	7&9	Meets Specs	In Process
Precast Concrete	13			Whittington, Todd	04/02/2001	6&8	Meets Specs	In Process
Precast Concrete	3	C105415		Schmidt, Sonia I	05/01/2001	6&8	Meets Specs	In Process
Precast Concrete	2	C104935		Main, Robert W	04/02/2001	11&12	Meets Specs	In Process
Precast Concrete	1	C105415		Main, Robert W	05/01/2001	6&8	Meets Specs	Void
Precast Concrete	5			Brantley, Billy	04/02/2001	5	Meets Specs	In Process
Stay-In-Place	14	C105261	Metal Stay-In-Place Forms	Main, Robert W	03/13/2001	5	Meets Specs	In Process
Structural Steel	9	C105422	Structural Steel	Alford, Tony B	03/13/2001	5	Meets Specs	In Process

Figure 5 - Access to an EXISTING Structural Steel Report

The **Structural Steel Report Details Window** is displayed as shown in the example below:

Review Structural Steel (Report ID: 7)

Report Name: Report ID: Report Status:

Contract: C105556 Contractor: REA CONSTRUCTION COMPANY Status:

Description: CA Work Order: 8.1631510

General | Pay Items | Hardware | Report | History

Material Type: Material:

Line Item: Sample From: Testing Category:

Accepted: Rejected: Shop Job: Structure:

Station: Location: Search by Plant ID: Section: County:

Fabricator: Inspector: Inspection Result:

Inspection Date: Comment:

Figure 6 - Initial Review Structural Steel Details (General Tab Window)

Note: To further aid in the retrieval of an EXISTING report, there are filtering functions available in HiCAMS. These filter functions are especially helpful when choosing from a very large listing of

reports. See *Field Inspection Reports: Overview - Retrieval Tips* for all Field Inspection Reports for details using these functions.

General Tab - Review Structural Steel

The valid Materials Type available for selection on the Structural Steel window is Structural Steel (English, Metric.) There is one Material Type per Report with one corresponding Material. As in the Guardrail window, Pay Items are separate from the Hardware Materials.

All data is completed by using the various drop-down menus and data entry fields on the **General** tab:

- ◆ The **Testing Category** for Structural Steel reports is required, and will default to “Acceptance”.
- ◆ The **Sample From** category for Structural Steel reports is required and will default to “Plant”.
- ◆ The user is required to enter the **Contract Number**. When the Contract Number is entered, the Contractor Name, Contract Status, Contract Description, County, and primary Work Order number (Project Number) will be defaulted on the window.
- ◆ The **Fabricator** is the Company that assembles the material. One or more Producer/Suppliers may provide material for the assembly but HiCAMS will only keep track of the Fabricator.
- ◆ The **Shop Job** Number is used by the Fabricator to indicate internal work order tracking.
- ◆ The **Location** information for the bridge can be entered and consists of a station from as well as a text location field.

Figure 7 - Structural Steel General Tab Window

The **Structure** number is used to identify the location from which this sample was taken. The first two digits of a structure number are used to represent the county in which the structure is located.

The Accumulated Weight is tracked in the **Accepted** quantity field. Structural Steel will seldom if ever have a **Rejected** quantity. Any imperfections are corrected prior to the material being placed on the project. However, a Rejected field has been provided in the event that this data is available and needs to be stored.

Notice of Rejection

The Notice of Rejection field is activated when any rejected amounts are recorded on the Pay Items Tab Window. When the Notice of Rejection button is clicked, the following window appears for the material:

Pay Items Tab - Review Structural Steel

The **Pay Items Tab** Window contains the following information:

- ◆ Description
- ◆ Piece
- ◆ Cover Plates
- ◆ Camber
- ◆ Weld Size
- ◆ Shear Stud
- ◆ Connection Dimension
- ◆ Magnetic Particle
- ◆ Girder Information - Heat Number and Components.

Step 1: To insert a new **Pay Item** row into this tab window, click the **Insert** button and enter the Pay Item data.

Step 2: To delete a Pay Item row, select the appropriate row and click the **Erase** button:

Review Structural Steel

Report Name: Structural Steel Report ID: 1 Report Status: In Process

Contract: C104996 Contractor: BMCO CONSTRUCTION, INC Status: Activated

Description: Cliffdale - All American Interchange Work Order: 8.2441601

General Pay Items Hardware Report History

Description	Piece	Cover Plates	Camber	Weld Size	Shear Stud	Connection Dimensions	Magnetic Partical
Plate Girders	103A1-1	N/A	148	Pass	Pass	Fail	Pass
Plate Girders	103A1-1	N/A	148	Pass	Pass	Fail	Pass

Girder Information:

Heat Number	Components
W86743	TFA
W86743	TFA

Figure 8 - Structural Steel Pay Items Tab Window

Step 3: To select the **Description**, click inside the *Description* field and all applicable selections are displayed. Click on the desired Description using the drop-down menu choices.

Step 4: To enter the **Piece** number, select the field and enter the Piece number.

Tip: The Piece number can contain up to 10 alphanumeric characters.
(Example: 103A1-1)

Step 5: To select **Cover Plates** criteria, click inside the field and make the appropriate choice using the drop-down menu.

Cover Plates

Pass

Pass

Fail

N/A

Figure 9 - Cover Plates Drop-Down Menu

Step 6: To enter the **Camber** information, select the *Camber* field and enter a number, Pass, Fail, or N/A into the field.

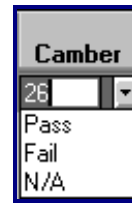


Figure 10 - Camber Entry Field/Drop-Down Menu

Step 7: To select the **Weld Size, Shear Stud, Connection Dimensions, Magnetic Particle** information, click each field, use each drop-down menu and select Pass, Fail, or N/A. (This is similar to the Cover Plates drop-down menu.)

Step 8: To insert a new **Girder Information** row (lower portion of the window), click the **Insert** button and enter the data.

Step 9: To delete a **Girder Information** row, select the appropriate row and click the **Erase** button:

HiCAMS - [testcomb]

File Edit Functions Inquiries References Admin Tools Window Help

Review Structural Steel

Report Name: Contract: C105556 Contractor: REA CONSTRUCTION COMPANY Report ID: Report Status: In Process Status: Work Order: 8.1631510

Description: CA

General Pay Items Hardware Report History

Description	Piece	Cover Plates	Camber	Weld Size	Shear Stud	Connection Dimension	Magnetic Partical
Beams	1212	Pass	PASS	Pass	Pass	Pass	Pass

Girder Information:

Heat Number	Components
W32421	Bottom Flange B
W32111	Bottom Flange D

Figure 11 - Structural Steel Pay Items Tab Window/Girder Information Area

Step 10: To enter **Girder Information - Heat Number**, select the *Heat Number* field and enter the number.

Note: *There can be one or more heat numbers for each piece.*

Step 11: To enter **Girder Information - Components**, click the *Components* field, use the drop-down menu and select from the following choices:

TFA thru TFE	Top Flange A through Top Flange E
WFA thru WFE	Web Flange A through Web Flange E
BFA thru BFE	Bottom Flange A through Bottom Flange E

Note: Users are required to indicate the Heat Number(s) for a Piece as well as the component that the Heat number corresponds to. See example screen below.

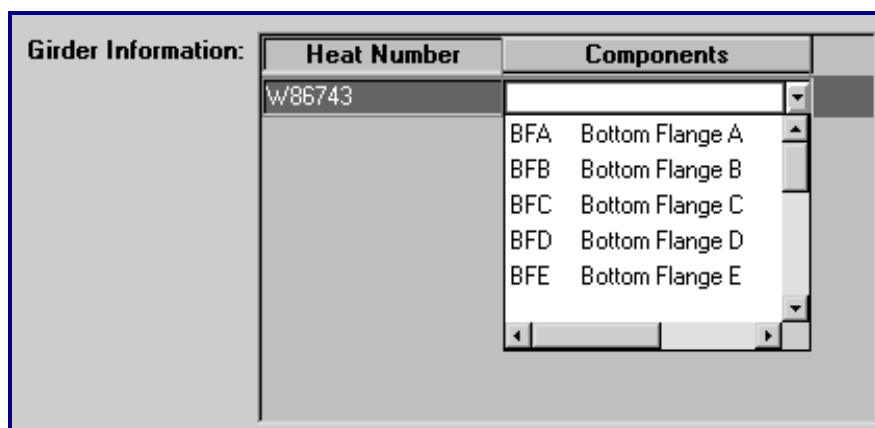


Figure 12 - Girder Information/Components Drop-Down Menu

Step 12: To save the record, click the **Save** button.

Note: The saved record captures all data that has been entered and the fields in all tab windows become protected and cannot be changed. The fields become editable for data entry after the Report's status is changed and the record is re-saved by an authorized user.

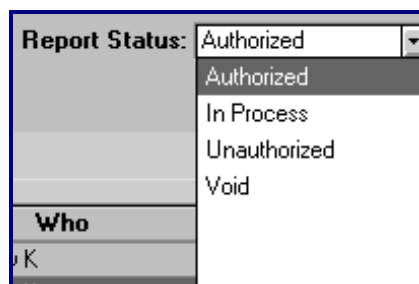


Figure 13 - Report Status Drop-Down Menu

Note: Saving a record can be performed at any point. If the record save is interrupted at any point, it is usually as a result of incomplete data entry. There are various messages that the system may display based upon what is required to be entered in order to save the record. The following is one such example message.



Figure 14 - Typical Advisory Message, Required Information for Structural Steel

To rectify the saving error, click the **OK** button, enter the required data mentioned in the message, and click the **Save** button.

Hardware Tab - Review Structural Steel

The **Hardware** tab displays *Description*, *Piece*, *Quantity*, *Dimension*, and *Pass/Fail* information for Structural Steel.

Step 1: To enter **Description** information, select the field and select from the drop-down menu. See example below:

Description	Piece	Quantity	Dimension	Pass Fail
Interior Cross Frames	2-101A1	10	7/8 x 2 1/2	Pending
Interior Cross Frames	2-101A1	10	7/8 x 2 1/2	Pending

Figure 15 - Structural Steel Hardware Tab Window

Step 2: To enter the **Piece** number, select the field and enter the number. The Piece number can contain up to 60 alphanumeric characters. (Example: 2-101A1)

Description	Piece	Quantity	Dimension	Pass/Fail
Interior Cross Frames	2-101A1	10.000	7/8 x 2 1/2	Pass

Figure 16 - Structural Steel Hardware Tab Window

Step 3: To enter a **Quantity**, select the field and enter the numeric quantity of hardware.

Step 4: To enter a **Dimension**, click inside the field and enter the dimension measurements of the hardware piece.

Step 5: To enter the **Pass/Fail** criteria, select the field, use the drop-down menu and choose the criteria.

Figure 17 - Pass/Fail/Pending Drop-Down Menu

Note: The Pass/Fail indicator for Hardware items also contains "Pending" as a possible selection. "Pending" is used to indicate that the results of the test have not yet been provided.

Report Tab - Review Structural Steel

The Review Structural Steel report is under the **Report** tab.

Step 1: To view the entire report, use the scroll bars or **Print Preview**.

Review Structural Steel (Report ID: 2161)

Report Name: Structural Steel Report ID: 2161 Report Status: In Process
 Contract: C105500 Contractor: S. T. WOOTEN CORPORATION Status: Activated
 Description: X-2DB Work Order: 6.449007T

General | Pay Items | Hardware | **Report** | History

Inspection Result: Meets Specs Page 1 of 2
 04/10/2002

North Carolina Department of Transportation
 Division of Highways, Materials and Tests Unit
 1801 Blue Ridge Rd. Raleigh, NC 27607
 Report on Structural Steel

Report ID: 2161 Work Order: 6.449007T Report Status: In Process
 Contract: C105500 County: Cumberland Inspection Date: 01/02/2002
 Station: 203 + 55 RE: Wise, Randy Inspector: Johnson, William E
 Location: Cumberland co. Sample From: Plant
 Contractor: S. T. WOOTEN CORPORATION Test Category: Acceptance
 Section: 688

Fabricator: Structural Steel Products, Structural Steel Products - Clayton - SS21

Pay Items:								
Description	Piece	Components	Heat Number	Camber	Shear Stud	Connection Dimension	Magnetic Partical	
Plate Girders	11A1	Bottom Flange A	1102257-03	Pass	Pass	Pass	Pass	
		Bottom Flange B	T2755					
		Top Flange A	1101258-03					
		Top Flange B	1101259-08					
		Web A	1101259-03					
		Web B	1101259-02					
Plate Girders	12B1	Bottom Flange A	1101257-03	Pass	Pass	Pass	Pass	
		Bottom Flange B	T2755					
		Top Flange A	1101258-03					
		Top Flange B	1101259-08					

Figure 18 - Structural Steel Report Tab Window

History Tab - Review Structural Steel

Any actions that have been performed for an individual Structural Steel report are listed located under the **History Tab** window. The Tab includes the *Action*, *Action Date/Time*, *Status*, and *Who* performed the action. This window also contains historical comments that may have been entered.

Step 1: To view the individual comments for each action, click the action to see the comment that has been associated with it. See example screen below:

Review Structural Steel (Report ID: 7)

Report Name: Structural Steel **Report ID:** 7 **Report Status:**

Contract: C105556 **Contractor:** REA CONSTRUCTION COMPANY **Status:** Activated

Description: CA **Work Order:** 8.1631510

General | Pay Items | Hardware | Report | History

Action	Action Date	Status	Who
In Process	5/14/01 11:24:00	In Process	Pace, Randy K
Comment	5/14/01 11:22:00	In Process	Pace, Randy K

Comment: Test Comment

Figure 19 - Structural Steel History Tab Window

REPORT OF SHOP INSPECTION OF STRUCTURAL STEEL ROLLED SECTIONS PROCESS FLOW

